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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/529,289 04/07/00 ALMOG

Y UDS

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EXAMINER

DOTE, J

ART UNIT PAPER NUMBER

5

1753

DATE MAILED:

06/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No.	09/529,289	Applicant(s)	ALMOS et al
Examiner	J. DOTE	Group Art Unit	1753

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ONE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

Responsive to communication(s) filed on 4/7/00

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

Claim(s) 1 - 41 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) \_\_\_\_\_ is/are rejected.

Claim(s) 31 is/are objected to.

Claim(s) 1 - 30, 32 - 41 are subject to restriction or election requirement

### Application Papers

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

All  Some\*  None of the:

Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

Copies of the certified copies of the priority documents have been received  
in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

## Office Action Summary

1. Claim 31 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. Claim 31 depends [improperly] on claim 30 and any of claims 1, 4, 6, or 13. See MPEP § 608.01(n). Accordingly, the claim 31 has not been further treated on the merits. In particular, claim 31 is not part of the restriction requirement set forth infra.

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-3, 7/1, 8/1, 9/1, 10/1, 11/1, 12/1, 14-18/1, 19/1, 20/1, 21/1, 22/1, 23/1, 24/1, 25/1, 26-27/1, 28/1, 29/1, and 32 are drawn to a substrate comprising a sheet of plastic, an underlayer coating comprising a first polymer material selected from the group consisting of an amine terminated polyamide, a silane coupling agent, and an aminopropyl triethoxy silane.

Group II, claims 30, drawn to method of making a coated substrate comprising the steps of coating a sheet of plastic with

a first polymer material to form an underlayer, where the polymer material is selected from the group consisting of an amine terminated polyamide, a silane coupling agent, and an aminopropyl triethoxy silane.

Group III, claims 37-41/1, drawn to a printing method using the substrate according to claim 1.

Group IV, claims 4; 5; 6; 7/(4,6); 8/(4,6); 9/(4,6); 10/(4,6); 11/(4,6); 12/(4,6); 13; 14-18/(4,6,14); 19/(4,6,13); 20/(4,6,13); 21/(4,6,13); 22/(4,6,13); 23/(4,6,13); 24/(4,6,13); 25/(4,6,13); 26-27/(4,6,13); 28/(4,6,13); 29/(4,6,13); and 33-36 are drawn to a substrate comprising a sheet of plastic and an overlayer coating comprising a second polymer material, which can be an ethylene acrylic acid copolymer, polyvinylpyridine, or styrene-butadiene copolymer.

Group V, claims 37-41/(4,6,13,33) drawn to a printing method using the substrate according to claims 4, 6, 13, or 33.

3. The inventions listed as Group I to III and Groups IV and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

(1) Groups I-III has a "special technical feature" that is not shared by Groups IV and V. The "special technical feature"

of claims 1, 30, and 37/1 in Groups I-III is an underlayer coating comprising a first polymer material selected from the group consisting of an amine terminated polyamide, a silane coupling agent, and an aminopropyl triethoxy silane. The "special technical feature" of claims 4, 6, 13, 33, and 37/(4,6,13,33) of Groups IV and V is an overlayer coating comprising a second polymer material of ethylene acrylic copolymer or polyvinylpyridine. Consequently, a lack of unity exists. See 37 CFR 1.475 and MPEP § 1850.

(2) The "special technical feature" that links the claims in Groups I to III lacks novelty or inventive step, as shown in US 3,477,901 (Keil). Keil discloses a substrate comprising a polyolefin sheet having thereon an underlayer coating comprising a silane coupling agent and an overlayer coating comprising MYLAR (an ethylene glycol-terephthalate polyester). Example 2, Table II. Accordingly, the "special technical feature" does not provide a contribution over the prior art. Therefore, a lack of unity of invention exists. See 37 CFR 1.475 and MPEP § 1850.

(3) The "special technical feature" that links the claims in Groups IV and V lacks novelty or inventive step, as shown in European Patent 789281A2 (EP'281). EP'281 discloses a substrate suitable for printing a liquid ink image thereon comprising a polyolefin sheet, such as propylene, having thereon an overlayer coating comprising an ethylene acrylic acid copolymer. Page 3,

lines 2-5, 9-11, and 16-17, page 4, lines 26-29. EP'281 further discloses that a primer layer can be present between the overlayer coating and sheet. Page 5, lines 1-2. Accordingly, the "special technical feature" does not provide a contribution over the prior art. Therefore, a lack of unity of invention exists. See 37 CFR 1.475 and MPEP § 1850.

4. In the event that the invention of any of the Groups I to V is elected, this application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

(1) a polyethylene sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising an ethylene acrylic acid copolymer;

(2) a polyethylene sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a polyvinylpyridine;

(3) a polyethylene sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a styrene-butadiene copolymer;

(4) a polyethylene sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an ethylene acrylic acid copolymer;

(5) a polyethylene sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an polyvinylpyridine;

(6) a polyethylene sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising a styrene-butadiene copolymer;

(7) a vinyl sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising an ethylene acrylic acid copolymer;

(8) a vinyl sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a polyvinylpyridine;

(9) a vinyl sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a styrene-butadiene copolymer;

(10) a vinyl sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an ethylene acrylic acid copolymer;

(11) a vinyl sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an polyvinyl pyridine;

(12) a vinyl sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising a styrene-butadiene copolymer;

(13) a polycarbonate sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising an ethylene acrylic acid copolymer;

(14) a polycarbonate sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a polyvinyl pyridine;

(15) a polycarbonate sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a styrene-butadiene copolymer;

(16) a polycarbonate sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an ethylene acrylic acid copolymer;

(17) a polycarbonate sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an polyvinyl pyridine;

(18) a polycarbonate sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising a styrene-butadiene copolymer;

(19) a PET sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising an ethylene acrylic acid copolymer;

(20) a PET sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a polyvinyl pyridine;

(21) a PET sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a styrene-butadiene copolymer;

(22) a PET sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an ethylene acrylic acid copolymer;

(23) a PET sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an polyvinyl pyridine;

(24) a PET sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising a styrene-butadiene copolymer;

(25) a BOPP (polypropylene) sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising an ethylene acrylic acid copolymer;

(26) a BOPP sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a polyvinyl pyridine;

(27) a BOPP sheet, an underlayer comprising an amine-terminated polyamide, and an overlayer comprising a styrene-butadiene copolymer;

(28) a BOPP sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an ethylene acrylic acid copolymer;

(29) a BOPP sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising an polyvinyl pyridine;

(30) a BOPP sheet, an underlayer comprising a silane coupling agent or amino propyl triethoxy silane, and an overlayer comprising a styrene-butadiene copolymer;

(31) a BOPP sheet, an overcoat layer comprising a polyvinyl pyridine; and

(32) a BOPP sheet, an overcoat layer comprising an ethylene acrylic acid copolymer.

Applicants are required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicants will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the

limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicants must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. The claims are deemed to correspond to the species listed in paragraph 4 above in the following manner:

- (1) claims 7/(1,4,6); 14-18/(1,4,6); 20/(1,4,6)
- (2) claims 7/(1,4,6); 19/(1,4,6); 20/(1,4,6)
- (3) claims 7/(1,4,6); 12/(1,4,6); 20/(1,4,6);
- (4) claims 7/(1,4,6); 14-18/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (5) claims 7/(1,4,6); 19/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (6) claims 7/(1,4,6); 12/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (7) claims 8/(1,4,6); 14-18/(1,4,6); 20/(1,4,6)
- (8) claims 8/(1,4,6); 19/(1,4,6); 20/(1,4,6)
- (9) claims 8/(1,4,6); 12/(1,4,6); 20/(1,4,6);
- (10) claims 8/(1,4,6); 14-18/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (11) claims 8/(1,4,6); 19/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (12) claims 8/(1,4,6); 12/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (13) claims 9/(1,4,6); 14-18/(1,4,6); 20/(1,4,6)
- (14) claims 9/(1,4,6); 19/(1,4,6); 20/(1,4,6)
- (15) claims 9/(1,4,6); 12/(1,4,6); 20/(1,4,6);
- (16) claims 9/(1,4,6); 14-18/(1,4,6); 21/(1,4,6); 22/(1,4,6)
- (17) claims 9/(1,4,6); 19/(1,4,6); 21/(1,4,6); 22/(1,4,6)

(18) claims 9/(1,4,6); 12/(1,4,6); 21/(1,4,6); 22/(1,4,6)  
(19) claims 10/(1,4,6); 14-18/(1,4,6); 20/(1,4,6)  
(20) claims 10/(1,4,6); 19/(1,4,6); 20/(1,4,6)  
(21) claims 10/(1,4,6); 12/(1,4,6); 20/(1,4,6);  
(22) claims 10/(1,4,6); 14-18/(1,4,6); 21/(1,4,6);  
22/(1,4,6)  
(23) claims 10/(1,4,6); 19/(1,4,6); 21/(1,4,6); 22/(1,4,6)  
(24) claims 10/(1,4,6); 12/(1,4,6); 21/(1,4,6); 22/(1,4,6)  
(25) claims 11/(1,4,6); 14-18/(1,4,6,13); 20/(1,4,6,13)  
(26) claims 11/(1,4,6); 19/(1,4,6,13); 20/(1,4,6,13)  
(27) claims 11/(1,4,6); 12/(1,4,6); 20/(1,4,6),  
(28) claims 11/(1,4,6); 14-18/(1,4,6,13); 21/(1,4,6,13);  
22/(1,4,6,13)  
(29) claims 11/(1,4,6); 19/(1,4,6,13); 21/(1,4,6,13);  
22/(1,4,6,13)  
(30) claims 11/(1,4,6); 12/(1,4,6); 21/(1,4,6); 22/(1,4,6)  
(31) claim 34  
(32) claim 35, 36

The following claims are generic: claims 1-6; 13;  
23/(1,4,6,13); 24/(1,4,6,13); 25/(1,4,6,13); 26-27/(1,4,6,13);  
28/(1,4,6,13); 29/(1,4,6,13); 30; 32; 33; and  
37-41/(1,4,6,13,33).

6. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

(1) For Groups I to III, as shown in paragraph 3, item (2) above, Keil shows that a substrate comprising a polyolefin sheet having thereon an underlayer coating comprising a silane coupling agent and an overlayer coating of MYLAR lacks novelty or an inventive step over the prior art. Accordingly, the special technical feature does not provide a contribution over the prior art. Therefore, a lack of unity of invention exists.

(2) For Groups IV and V, as shown in paragraph 3, item (3) above, EP'281 shows that a substrate comprising a BOPP sheet having thereon an overlayer coating comprising an ethylene acrylic acid copolymer lacks novelty or an inventive step over the prior art. Accordingly, the special technical feature does not provide a contribution over the prior art. Therefore, a lack of unity of invention exists.

7. Due to the complexity of restriction and the election of species requirements, applicants' representative was not contacted to request an oral election to the above restriction requirement.

Applicants are advised that the reply to this requirement to be complete must include an election of the invention and an election of species to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599 for after final faxes, and (703) 305-7718 for other official faxes.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JLD  
June 13, 2001

*Janis L. Dote*  
JANIS L. DOTE  
PRIMARY EXAMINER  
GROUP 1500  
1700